

Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

# Maintaining mental health in the time of coronavirus

From social isolation to working on the front line, covid-19 is posing serious challenges to mental health. **Moya Sarner** asks the experts how we can protect ourselves

FTER weeks of complete social isolation, Italy has undergone what psychiatrist Paolo Brambilla calls "a social experiment that has never been done before". The country has suffered a massive death toll from the coronavirus, and has endured one of the strictest lockdowns in the world. The effects on the nation's psyche will be profound, says Brambilla, who is at the University of Milan. This month saw half of the world's population enter some form of confinement, and many people are facing the biggest threat to their health and livelihood in recent history.

"We are seeing the spread of a virus, but we have also, from the very beginning, been seeing the spread of fear as well," says Aiysha Malik, a psychologist at the World Health Organization. As well as having to wrap our heads around the threat of the virus itself, public and personal life has changed beyond recognition. The actions we have had to take to curb the spread of disease have left some of us struggling to cope with a lack of childcare while working, a loss of income, separation from family and friends, and serious health fears. For others, it has meant working on the front line, facing potentially traumatic experiences and making tough moral decisions. Whatever our situation, it's time to look at what we can all do to limit the toll on our mental well-being.

"People are facing a novel, threatening and unpredictable experience," says psychiatrist Andrea Danese at King's College London. "At the same time, people are losing important coping strategies for stressful situations, enduring disruption in their routine and having to distance themselves from friends and families. They may also suffer the losses of loved ones. It is important to consider the longerterm implications of this emergency for mental health." In a survey published last week in *The Lancet Psychiatry*, people in the UK reported increased anxiety, depression and stress, and concerns about isolation. These were larger worries than the prospect of having covid-19.

Taking these psychological costs seriously is critical, says Sandro Galea, a physician and epidemiologist at Boston University in the US. "The mental health impact is the next wave of this event, and I am worried that we're not talking about it enough," he says. "These issues are very real." It isn't too soon to start to tackle the fallout, says Malik. "Countries need to prepare for how they're going to address mental health and psychosocial support, now."

How do we do that? In many respects, the situation is unprecedented, so we are dealing with the unknown. But there are ways to begin to make sense of things. Results are coming in from studies and reviews turned around at breakneck speed. We can also ground our thinking in previous research on the psychology of epidemics and quarantine, in the response to past events, including terrorist attacks and natural disasters, and in theories of trauma and resilience. On the following pages, we ask those working in mental health to share their understanding of the situation, and to offer their advice on how we can protect ourselves and our loved ones.



#### HOW WE CAN ALL LOOK AFTER OUR MENTAL HEALTH

Seven days after the UK went into lockdown, Richard Bentall, a clinical psychologist at the University of Sheffield, was in the middle of analysing the impact the week had had on the mental health of 2000 people in the UK. "I've never moved so fast on a piece of research — it's extraordinary really," he says. The people were representative of the nation's adult population in terms of age, sex and household income. Each participant completed a standard survey about their levels of depression, anxiety and symptoms of trauma related to covid-19, with different people answering on different days that week.

The results suggest that Prime Minister Boris Johnson's announcement of lockdown on 23 March correlated with a spike in depression and anxiety. Prior to the announcement, 16 per cent of participants reported depression, and this rose to 38 per cent immediately following it. For anxiety, the proportion rose from 17 to 36 per cent. Over the course of the week, however, the level settled at around 20 per cent for both. "The population as a whole is looking pretty resilient," says Bentall, although this could change as the spread of the virus progresses.

The mental health impacts of the lockdown may vary by location. It will be different, for instance, for people living in large cities with no outside space and those in the countryside who have their own gardens, says Brambilla. This was borne out by Bentall's survey, which showed that urban living was associated with a higher risk of depression and anxiety. There are many ways that the psychological impact of social isolation can play out, says Brambilla, particularly in very social cultures. Stressrelated symptoms might include sleep disorders and gastric troubles, he says. "And, of course, the general level of anxiety and depression might increase. At the most extreme levels, we might expect an increase in the rate of suicide." In Italy, at least two nurses treating covid-19 cases have died by suicide.

The way that lockdown is implemented by governments can affect outcomes, according to research by psychiatrist Neil Greenberg at King's College London and his colleagues. In late February, they published a rapid review of 24 papers on previous outbreaks including SARS, Ebola and the H1N1 swine flu, focusing on the mental health impact of quarantine. "If quarantine is done well, although it will be frustrating and a bit annoying at times, it needn't cause long-term mental health problems," says Greenberg. "But if it is done

"If done well, quarantine need not cause longterm mental health problems"

badly, it can have a profound effect on people's lives, for months and years ahead." While the paper was looking specifically at quarantine, which is different to lockdown or social isolation, "there are a lot of good lessons we can learn," says Greenberg.

The effects of quarantine were found to include anxiety, low mood, depression and symptoms of post-traumatic stress. "We would hope that most people who develop mental health problems will recover after a period of months without the need for treatment," says Greenberg. "But there's no doubt that some people are going to need mental health care as a direct result of what is going on."

Several factors can make quarantine go well, psychologically speaking, according to the research. We need to understand the rationale and "buy into it". Many of the negative effects of quarantine are associated with our loss of

Feeling physically trapped can reduce our psychological space



X MAJOLI/MAGNUM PHOT

liberty, whereas voluntary quarantine is much less problematic. So appealing to altruism by reminding people of the benefits to wider society can help. We also need access to basic supplies, we need to be able to communicate with others and have access to activities to keep us occupied, and we need to feel that we aren't going to be financially incapacitated. And the quarantine should be as short as possible and for a fixed time. "We found that extending the period of quarantine once it has already been set is particularly detrimental to mental health," says Greenberg.

Loneliness will play a part for many during this time, but not necessarily in the way we might assume, says Farhana Mann, a psychiatrist at University College London. It is important to understand the distinction between isolation and loneliness. "Loneliness is a subjective sense that your social needs are not being met, while isolation is about being physically separated from others," she says. "A person can be physically isolated and not feel lonely, while another can be surrounded by family but may feel lonely because of a lack of meaningful connection. Both are important considerations in this current crisis."

A recent survey conducted in the US by the American Enterprise Institute think tank over five days from 26 March found that 53 per cent of people reported feeling lonely or isolated at least once in the past week, and more than one-third reported feeling this at least a few times. As part of the Loneliness and Social Isolation in Mental Health Network, Mann and her colleagues are developing a study into the impact of the covid-19 crisis on people with mental health problems – and what measures may prove beneficial. "Previous research suggests that volunteering can help loneliness, both for the person being supported and the volunteer," she says. "Volunteering to give people a phone call or delivering medicines safely could be ways to feel actively connected."

Social media is helping many to stay in touch with others while socially distancing, but it can also be harmful, says Rina Dutta at King's College London, who researches social media and smartphone use among young people. Some may feel unable to stop looking for the most current news. "Because it is 24/7, it can become overwhelming, leading to obsessional preoccupation and fixation, and exclusion of other activities," she says. This is always a danger, she points out, "but when we are not in a pandemic, we can encourage young people to get a balance between screen time and other activities such as seeing friends and going to the cinema – now you can't do those

things". It is important to get creative, she says, and find safe, alternative activities that can be done at home, such as exercise or board games.

While this is undoubtedly a stressful and upsetting time, that doesn't necessarily mean it will harm us psychologically, says Greenberg. It is important to remember that "distress and frustration are not mental health problems", but a normal, reasonable and necessary emotional response to what is going on. Malik agrees. "This is a normal response, but it being normal doesn't make it easy," she says.

## THE STRAIN ON COUPLES, FAMILIES AND YOUNG PEOPLE

In the first week of lockdown in the UK, couples therapy charity Tavistock Relationships saw a 40 per cent increase in searches for its online services compared with previous weeks. To many people, it probably comes as little surprise that the demands of social distancing and lockdown amplify any problems in a relationship, and create new strains – especially when you add healthcare worries, childcare pressures, financial uncertainty and cramped living conditions to the mix.

Couples often seem to share their anxiety through "unintended turn-taking", says Tavistock Relationships psychotherapist Catriona Wrottesley. At a certain point, one partner might feel highly anxious, while the other feels calm, then they swap. "The anxiety is held within the couple system, but doesn't necessarily lodge permanently with one partner or the other," she says. While this can be helpful in some partnerships, in others it can create conflict. "If a couple can't manage a difference in response to anxiety or risk management, it can feel as if one is against the other. One partner can feel that the other doesn't understand or care about them. That seems to be very common." She adds that during a lockdown, when physical space is limited, an internal sense of psychological space can also feel restricted, and feelings of claustrophobia can build greater pressure even for couples without children.

Having children was also associated with a higher risk of anxiety and depression during the first week of lockdown in Bentall's UK study (see "How we can all look after our mental health", left). And there are particular characteristics of the covid-19 pandemic that make it acutely problematic for families, says Nicola Labuschagne, a clinical psychologist at the Anna Freud National Centre for Children and Families in London. "The coronavirus is an invisible threat, which makes it that much

# ADVICE FROM THE EXPERTS

Maintain regular rhythms: wake up, eat and go to sleep at the same time you normally would. Find a project to keep yourself going, whether that's work, learning something new or reading Proust. Maintain connections with others by phone or online, and exercise once a day, preferably in green space, and always while social distancing.

Richard Bentall, clinical psychologist, University of Sheffield, UK

Limit your exposure to media stories about the pandemic – especially those with experts' views about what is going to happen over the next three months – because it can cause anxiety.

Neil Greenberg, psychiatrist, King's College London

Think about the things you have done in the past that have helped you to feel a sense of calm and stability. For me, it's reading. That is something I have always enjoyed, that I haven't often had time to do and I'm able to make space for now – in the silence of being at home.

Aiysha Malik, clinical psychologist, World Health Organization

Whenever you're on social media, think of your own and others' mental health. Think about why and how you're using it. Is it benefiting you, someone else or is it just mindless scrolling? Be analytical and only share something when you've verified the source. Sharing fake news is so disturbing, it has a negative impact on all of us, especially on those with mental health problems.

Rina Dutta, psychiatrist, King's College London

# ADVICE FROM THE EXPERTS

Remember that whatever you put into the atmosphere, you tend to get back – you have some control over that. At home, work as a team with your partner. Plan how you will use the rooms, when you will be together and when you will have your private space. Negotiating this can help you and your partner to feel cared for.

Catriona Wrottesley, psychotherapist, Tavistock Relationships, London

It is important to be honest and acknowledge your emotions, and it's important for parents to be open and honest with their children. What isn't helpful is panic. Be factual, explain what the risk is, and what can be done to reduce it. Be responsive – answer questions when they're asked, and use words and ideas that your children can understand. Parents are good at this, because they have lots of practice.

Andrea Danese, psychiatrist, King's College London

Allow the chaos for a bit and then start to develop a structure in the home, so that the children feel sane and safe, and the parents feel sane and safe. Understand that this structure will be organic, which is a polite way of saying that it is likely to go tits up at some point. And go easy on yourself: this pandemic is unprecedented. The prime minister didn't get this right straight away, and neither will we.

Nicola Labuschagne, clinical psychologist, Anna Freud National Centre for Children and Families, London



more frightening," she says. "This leaves parents in a state of perpetual anxiety, and that means they have to dig really deep in order to be able to manage their own anxiety, and in order to be able to manage their children's."

Added to this there is the impact of the lockdown, including the closure of schools for most children, which leaves families feeling untethered. "What is having a really important impact on every family's mental health is the complete change in structure," says Labuschagne. "Parents are now having to re-establish different sorts of routines – and when you're anxious about a risk you cannot see, and about being able to pay bills, that is a tall order."

Children and teenagers may be disproportionately affected by ongoing events, says Danese. There are several reasons for this. "Starting from biology, their brains are still developing, and they may be less able to control their emotional responses, whether to events they perceive as traumatic or to worrying thoughts and uncertainty," he says. "They may struggle with the alarming and sometimes conflicting messages on the news. And, even more than the rest of us, they have had an unprecedented disruption of their normal experiences like education and socialising."

Young people are also feeling the effects

"Young adults in the US reported much more frequent feelings of loneliness than older people"



Establishing new routines can be hard for children and parents

of loneliness. In the American Enterprise Institute survey, young adults reported much more frequent feelings of loneliness than older people, with 48 per cent of those aged 18 to 29 saying they have felt lonely or isolated at least a few times in the past week, compared with just 20 per cent of those aged 65 and older.

On a more positive note, Danese points out that the pandemic, as an event that is unrelated to interpersonal relationships – unlike, say, bullying or abuse – is typically associated with the lowest risk of developing mental health conditions. He is currently developing models for individualised risk prediction, to try to identify those young people who are generally likely to be less resilient and so more at risk of developing mental health problems. This would allow more resources to be allocated to those predicted to be most vulnerable.

## THE IMPACT ON VULNERABLE GROUPS

These are undoubtedly tough times for everyone, but for certain groups the mental health impact is particularly concerning. "We are extremely worried about people with severe mental health problems, including schizophrenia, depression and bipolar disorder," says Allan Young, director of the

Centre for Affective Disorders at King's College London. "We know that there is an annual spring peak in suicide and relapses in bipolar disorder, especially mania, and one of my great worries is that we'll have more of this."

For families with mental health problems, the situation can deteriorate very quickly. says Labuschagne. "A crisis like this can really exacerbate pre-existing conditions and pre-existing deficits in a parent's ability to manage their emotions," she says. "When that is escalated, with no outlet because everybody's locked in together, it can be very, very difficult for children." For many at-risk children, school is a place of safety and support. "The loss of school – not just the loss of routine, but also of particular teachers who can help children to have a good experience of managing anxiety - is crucial. I think there could well be long-term negative effects of this," she says. UK mental health charity Young Minds recently surveyed young people with a history of mental health needs and found that more than 80 per cent reported a worsening of their conditions as a result of the pandemic.

Labuschagne and her colleagues work with families, offering intensive help at least twice a week. "These are the families we know are vulnerable, who are known to the local authority and to social workers because of the impact of the parents' mental health on their ability to parent their children safely and consistently," she says. "They do not have Wi-Fi, they are living in poverty, in two or three rooms, and they have children who are at serious risk of harm. These parents have openly expressed their frustration at not being able to cope." The service has had to close its doors during this crisis, but staff are still working, calling families twice a week, and suggesting play activities and other strategies.

Existing mental health inequalities, which particularly disadvantage people from low socio-economic and ethnic minority backgrounds, are also likely to widen during the pandemic. "We do project that this is going to have a significant impact, and amplify the existing mental health inequalities, and that these are going to be long-lasting effects," says Stephani Hatch, a sociologist and epidemiologist at King's College London. It is possible to get a sense of the impact on these groups by looking at research on previous disasters such as Hurricane Katrina, which struck the US in August 2005. "We know that unemployment, job loss and financial strain are very detrimental to mental health in the immediate, medium and long term, particularly as there is stress proliferation, which is when

an acute stressor becomes a chronic strain over time because of the knock-on effects on relationships and finances," says Hatch.

Stephen Blumenthal, a psychologist at the Tavistock and Portman NHS Trust in London, also points out a worrying rise in calls to organisations that help people experiencing domestic abuse.

The psychological health of people with addictions, too, will be under greater strain. Some people with alcohol and drug addictions are going to be isolated from friends and family, as well as sources of support such as Alcoholics Anonymous and Narcotics Anonymous, at a time when they are feeling particularly anxious, and there is serious risk of relapse.

It is vital that vulnerable people can access help, says Blumenthal. "Troubled individuals need to be able to talk to professionals. Advice is not sufficient."

#### HOW DO WE PROTECT FRONT-LINE WORKERS?

In Milan, Brambilla and his colleagues have created an outpatient service for healthcare workers at the local Policlinico Hospital that includes mental health support delivered remotely. "I'm worried about them," he says. "It's tough work, it's stressful. They're asking for help with anxiety, with insomnia, with depressive symptoms."

Experiences from the military can offer insights. "The challenges faced by troops include not just threats to their own life, but also threats to their sense of what's right and wrong," says Greenberg. Having spent more than two decades in the military, Greenberg now specialises in psychological resilience in organisations. "My interest is, how do you look after the mental health of healthcare workers in this pandemic?" he says. "We absolutely need to protect their mental health, and we also need them to save our lives. You can't win a war unless you've got people fighting on the front line." People who deploy on military operations often find themselves stuck in a "horrible position of wanting to do the right thing, but not being able to do it", he says. This violation of a person's moral code through the actions - or inaction - they are forced to take can lead to psychological distress, a problem known as "moral injury".

Healthcare professionals, too, may find themselves in this position, unable to deliver the care they want because of the number of patients and a lack of staff and vital equipment such as ventilators. "Although the challenges"

are different, the actual impact on one's sense of what's right and wrong, and on one's mental health, can be incredibly similar," says Greenberg. In a recent paper, he and his colleagues argued that if staff don't have the right support, moral injury could lead to mental health problems among those dealing with covid-19, including depression and post-traumatic stress disorder. "It's important to state that moral injury is not a mental illness, but it absolutely puts you in a place where you are psychologically more vulnerable," he says.

For healthcare workers whose mental health was already vulnerable, this is a particularly worrying time. Dutta provides treatment to health staff who have bipolar disorder and treatment resistant depression, and is continuing to do this remotely during the crisis. "The risk of their mental health spiralling downwards is very real," she says.

There are several ways to help reduce these risks and strengthen the resilience of healthcare workers. "Evidence from both military and non-military studies shows that the way people treat their staff is absolutely critical in determining whether they develop mental health problems," says Greenberg. "Equally as important is whether staff seek help early to try to rectify mental health problems if they develop. It's inevitable that staff will feel stressed, because it is a difficult situation – but we mustn't let those early signs of distress develop into moral injuries and mental health disorders."

Once problems have been identified, it is relatively easy for supervisors to step in, he says. Actions might include altering someone's duties to give them some respite. Even just a 5-minute chat with a colleague can help after a difficult experience. Greenberg cites a study by the Israeli military showing that the more such practices were applied when soldiers were having an acute stress reaction during the 1982 Lebanon war, the better their mental health was 20 years later. "What we need is for supervisors, managers and colleagues to be looking out for each other," he says. "We need people to actively monitor those who are providing the front-line services."

This kind of thinking ties up with that of Lydia Hartland-Rowe, a psychotherapist at the Tavistock and Portman NHS Foundation Trust in London. She is helping to coordinate a project to support the well-being and mental health of 52,000 health and social care staff in London during the coronavirus crisis. This consists of online resources, brief and relevant podcasts, and email and telephone support for managers so that they can better support their



Residents in India applaud health workers during lockdown

"During a crisis front-line staff want to share, connect and make contact"

teams. From events like the 2017 fire in London's Grenfell Tower that left 72 dead and the 2005 bombings in the city that killed 52 people, we know that front-line staff don't want in-depth psychological work during or immediately after a crisis, but "to share, connect and make contact", she says.

Greenberg agrees that bonds between team members is key. "Some are saying that hospitals are at breaking point, that healthcare workers face an impossible task. But with good leadership and good camaraderie – and the right equipment – you can come through situations that might be described as impossible, and not only do a good job and survive, but also experience something we call post-traumatic growth. A feeling that you did well despite the circumstances. That you feel proud to be a healthcare worker."

Need a listening ear? UK Samaritans: 116123 (samaritans.org). Visit bit.ly/SuicideHelplines for hotlines and websites for other countries



Moya Sarner is a freelance writer based in London